

Name: \_\_\_\_\_

## p1029: Combine Like Terms (v12)

### Example

Combine like terms.

$$-8x + 7 - 3x^2 + 2 + 5x^2 - 5x + 4x^2 + 9 - 2x + 6$$

### Answer

Combine the quadratic terms.

$$-3x^2 + 5x^2 + 4x^2 \equiv 6x^2$$

Combine the linear terms.

$$-8x - 5x - 2x \equiv -15x$$

Combine the constant terms.

$$7 + 2 + 9 + 6 \equiv 24$$

The final result:

$$6x^2 - 15x + 24$$

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### Question 1

Combine like terms.

$$-2 + 2x + 5 + 4x^2 - 3x^2 + 3x^2 - 5 - x - 8x + 7x^2$$

$$11x^2 - 7x - 2$$

## Question 2

Combine like terms.

$$-5x^2 + 7x + 6x - 4 - 3x + 2x^2 - 6 + 4 - 2x^2 + 9$$

$$-5x^2 + 10x + 3$$

## Question 3

Combine like terms.

$$-3x + x^2 + 3x - 2 + 2x^2 + 4x + 6x^2 + 9 + 8 - 8$$

$$9x^2 + 4x + 7$$

## Question 4

Combine like terms.

$$3x^2 - 7x - 5x - 4x^2 + 1 + 2x^2 + 6 - 8x + 4 - 2$$

$$x^2 - 20x + 9$$